

S
333.38
I 9m



3 0864 00023923 9

33.38

29m



GP110

STATE HOUSE

MONTANA

SUBDIVISION HANDBOOK



MONTANA STATE LIBRARY
930 East Lyndale Avenue
Helena, Montana 59601

MONTANA DEPARTMENT OF INTERGOVERNMENTAL RELATIONS
DIVISION OF PLANNING
FEBRUARY, 1975

MONTANA SUBDIVISION HANDBOOK

PUBLISHED BY
MONTANA DEPARTMENT OF INTERGOVERNMENTAL RELATIONS
HELENA, MONTANA

Ronald P. Richards
Director

Harold M. Price, Administrator
Division of Planning

FEBRUARY 1975

The preparation of this document was financed in part through a grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended.

TABLE OF CONTENTS

	<u>Page</u>
PART I: THE OBJECTIVES OF THE SUBDIVISION REVIEW PROCESS	
A. The Need for Subdivision Regulation	1
B. The Authority for Subdivision Control	2
C. Community Concern with Subdivision Regulation	2
D. Relation of Subdivision Control to a Comprehensive Community Planning Program	4
 PART II: THE FORM AND CONTENT OF SUBDIVISION REGULATIONS	
A. General Introductory Material and Definitions	3
B. Review and Approval Procedures	9
C. Design and Improvement Standards	22
D. Administrative Provisions	22
E. Requirements for Form and Content of Final Plats	22
 PART III: SUBDIVISION DESIGN AND IMPROVEMENT STANDARDS	
A. Basic Subdivision Designs	23
B. Effect of Nearby Development on the Site	26
C. Effect of the Physical Characteristics of the Site	28
D. Street and Lot Layout	32
E. Subdivision Design Procedures	41
F. Controlling the Cost of Improvements and Maintenance	45
G. Subdivision Improvement Guarantees	46
H. Non-Residential Subdivisions	46
 PART IV: ADOPTING SUBDIVISION REGULATIONS	47

February 18, 1975

TO: Local Government Officials and Planning Board Members

We sincerely hope that you will find the attached Subdivision Handbook both useful and informative in carrying out your responsibilities under the Subdivision and Platting Act.

The Handbook is, by no means, intended to be a "how to" book for subdividing land. It has been written especially for use by planning board members and local officials and should be of substantial value to those of you who are responsible for reviewing plats and are without the services of your own professional planning staff.

Please write or call if you have any comments or questions. Our mailing address and phone number is Capitol Station, Helena, Montana 59601, 449-3757.

Sincerely,

A handwritten signature in dark ink, appearing to read "HMP", with a stylized flourish at the end.

Harold M. Price, Administrator
IGR/Division of Planning

HMP/ke

Enc: a.s.

PART I:

THE OBJECTIVES OF THE SUBDIVISION REVIEW PROCESS

A. THE NEED FOR SUBDIVISION REGULATION

Montana is a very large, sparsely populated state. Approximately one-third of its total area is public land. An unknown but significant portion of the remaining land is relatively free of development pressures. But those lands in and around our cities and towns, in our valleys, adjacent to our lakes and streams and in our most productive farm areas are subject to increasing subdivision activity. Our lack of population growth is no measure of land development pressure. For example, during the period 1963 to 1973, the population of Montana grew only about two percent. However, during that same period of time, data from the Department of Revenue show that the amount of land in suburban tracts increased from 36,501 acres to 289,876 acres.

There is nothing inherently "bad" about subdividing land; people must have a place to live and work. But it should be kept in mind that our land resource must be utilized intelligently and with great forethought. The manner in which land is originally divided can determine, with positive or negative results, the future development pattern of a community. Although each community or locality is unique, there are similar opportunities and problems encountered wherever land is subdivided. If agricultural land is subdivided, it will never again, for all practical purposes, be used for food production. If land is wasted by unnecessary streets, it will most likely never be reclaimed. If lots are too large, the cost per lot of public services and utilities will always be higher than necessary. If subdivisions occur in a "leap frog" pattern away from urban areas, the cost of extending utilities and roadways can become unreasonably high. If the overall design of a subdivision does not take full advantage of the aesthetic opportunities offered by the site, each individual property will most likely never be as good an investment as it potentially could have been.

Local governments are learning that it can substantially benefit the community to assure that land subdivision is properly controlled. The community can and should assure that new development will be an asset rather than a liability.

B. THE AUTHORITY FOR SUBDIVISION CONTROL

Local governments in American have been regulating the division of land into building sites since colonial times. Because of scandals involving land speculation companies operating on the frontier in the 1800's, one of the early concerns of government was to assure proper land titles and legal descriptions. Montana's old platting act which required the surveying and platting of subdivided lands dated back to 1883. Montana's original law was designed to control the surveying and platting of townsites. Local governments today are facing problems never anticipated when our first platting law was passed ninety years ago. A study conducted by the Division of Planning in 1972 indicated that only one-third of the subdivision activity was being done in compliance with the law. Montana witnessed subdivision of unsuitable land; water supply, sewage and solid waste disposal problems; lots poorly designed and poorly located; and inferior road design and construction which created traffic hazards and resulted in increased maintenance expense. Public concern with the problem of unregulated subdivision activity resulted in the passage of the Montana Subdivision and Platting Act in 1973 and its amendment in 1974. The Act requires that each local government adopt and enforce subdivision regulations which comply with the provisions of the state law and the Minimum Requirements for Local Subdivision Regulations adopted by the Division of Planning. The basis of authority for local government to promulgate such regulations lies in the "police power." This is the power of government to act to promote and protect the public health, safety and welfare. In the case of the application of the police power to land subdivisions, the state has delegated its police power to the local units of government -- the counties, cities and towns. It is in this role that local governments regulate subdivision design and prohibit subdivision in areas unsuitable for development because of health or safety hazards such as flooding, polluted water supply, high water table or unsuitable soil, topographic or geologic conditions. The subdivision law authorizes the governing bodies of cities, towns and counties to delegate the review of subdivisions to their planning board.

C. COMMUNITY CONCERN WITH SUBDIVISION REGULATION

Subdivision regulation is more than a procedure to obtain better design of new developments. The subdivision control process can have important effects and implications for a broad range of public and private concerns.

Local street and road or public works departments have found that subdivision regulations can have a direct effect on their operations and budgets. If new streets are properly laid out, they will be easier to maintain and service. If the type of pavement and drainage has been decided upon in advance in cooperation with the local street and road department and has been paid for and properly installed by the subdivider, the cost of maintenance, repair, and replacement can be kept to a minimum. The municipal engineer or county road superintendent should be involved in the review of each new subdivision, because he will be the city or county's representative on matters of street design, sewer and water supply requirements, and other improvements, and should have an opportunity to help obtain the type of improvements that will be needed.

Local city and county health departments are able to obtain better water supply and sewage disposal systems in new developments when subdivision is controlled. They can cooperate with the local planning board in reviewing proposed subdivisions, and the planning board can find the experience of the local sanitarian and state health authorities very useful. Working together, a planning board and the state and local health officials should be able to prevent substandard water supply, sewage and drainage facilities in new subdivisions.

Local fire departments and ambulance services will find that when the layout of new streets is carefully reviewed, they will be able to more satisfactorily route emergency equipment by preventing excessively long cul-de-sac streets, dead-end streets, steep grades, and other layout features that cost valuable time for emergency service vehicle runs. The duplication of street names, often a cause for confusion, can be eliminated. Adequate water mains and hydrants can also be obtained at the time of actual development through the process of subdivision control. Another agency interested in street layout will be the police, who will appreciate the elimination of potential traffic hazards by careful design of street intersections.

School districts find that it is to their interest to see that new subdivisions are laid out in a way that will permit school buses to operate most efficiently and will create a maximum of safe walking routes for children. The review of a proposed subdivision also informs the school board of the development so that action can be taken to prepare the school district for possible increases in enrollment.

Without effective subdivision regulation, the vacant land in a community could be fully developed without any space having been set aside for the parks and recreation areas that are necessary to make a satisfactory residential environment. The problem of acquiring needed land for parks can be met, at least in part, through the setting aside of sites by the subdivision developer.

A water department or water district can simplify its work in new developments by using the subdivision approval process as a means of getting new mains and fittings installed that are compatible with existing systems, if the mains are installed by the developer at the time of subdivision approval and development. Similarly, sewage disposal departments or districts can meet their needs and can, through negotiation, work out problems of trunk lines created by new developments.

In addition to local, county, and state agencies, several other public or private agencies will be concerned with subdivision developments. Companies insuring land titles will want to be familiar with the legal requirements for subdivision approval in order to search out and prove that developments have received all the required approvals. Banks and other lending institutions, concerned either with the land development itself or with the mortgages of the homes eventually erected, will also want to assure themselves that these approvals have been obtained. Federal mortgage insurers, such as the Federal Housing Administration and the Veterans Administration will be similarly involved, and, in addition, will require that their own standards for layout and required improvements be met. Local utility companies serving new developments are also closely involved in subdivision activity. The location of their lines, poles, and mains and the costs of the installations can be affected by the street and lot layout and the requirements of the local regulations.

D. RELATION OF SUBDIVISION CONTROL TO A COMPREHENSIVE COMMUNITY PLANNING PROGRAM

Subdivision control is only one of the functions of the local planning board. Subdivision regulations are primarily a regulatory tool for assisting in the implementation of a land use plan. Since the time of their inception, subdivision regulations, when applied without benefit of a land use plan have been most effective in achieving improved internal, functional and aesthetic design and least effective in regulating the location of a proposed subdivision. The location of subdivisions, on the other hand, is the proper

subject of the comprehensive land use planning process by which physical and ecological limitations of the land are identified, social and economic needs of the people are recognized, and the appropriate general uses of different land areas are determined. While subdivision regulation is one important method of implementing a comprehensive plan, it is by no means a substitute for planning.

Montana laws allow planning boards to establish and carry out a comprehensive community planning program. Each planning board will want to prepare, sooner or later, the comprehensive plan or "master plan" provided for in Montana law. A comprehensive plan is an official public document which is adopted by the city or county to serve as a policy guide for the physical development of the community. It is a general indication as to how the community wants to develop over the next 20 to 30 year period. The plan can be used by the planning board as its official guide, and after adoption can be changed. The local governing body, in seeking advice from the planning board on development matters, will obtain the benefits of the plan's guidance.

The plan usually includes general background information on the local population, economy, existing land use and ownership, and transportation systems. In addition to establishing the community's goals and policies for its development, it also contains considerable information on the physical characteristics of the land area being planned for. These include information on topography, slope, geology, soils, vegetation, hydrology, climate, and wildlife.

The specific applicability of the comprehensive plan to new subdivisions is found in section 11-3866 of the subdivision law which states that "the governing body or its designated agent or agency shall review the preliminary plat to determine whether it conforms to the local master plan if one has been adopted." By consulting the comprehensive plan as it reviews a proposed subdivision design the planning board can help assure that the layout of a particular subdivision will be coordinated with other development in the area and properly related to the proposals in the plan. It is especially important that the subdivision layout be consistent with the community's long-range plans for its road system, parks, schools, recreation areas, and public utilities.

The Subdivision and Platting Act itself does not give explicit authority or direction to the governing body to reject a proposed subdivision if it does not conform to the comprehensive plan. This authority is, however, contained

in Montana's local planning enabling legislation, (Sections 11-3801 through 11-3858, Revised Codes of Montana, 1947). Section 11-3842 provides that "where a master plan has been approved, the city council may by ordinance or the board of county commissioners may by resolution require subdivision plats to conform to the provisions of the master plan." Any proposed subdivision would then be required to be planned in accordance with those types of land uses which the comprehensive plan proposes for the area involved. However, the common practice in Montana has been to use the comprehensive plan only as a general design guide or resource to be consulted for an understanding of the relationship of a specific development proposal to the community's long-range development plans. Using a comprehensive plan as a zoning map should be discouraged. A better way to implement the land use proposals in the comprehensive plan is to use zoning or other similar land use regulations. Zoning regulations provide procedures to ensure that individuals receive due process and that property rights are protected. These procedures include provisions for amending the regulations, for allowing variances, and for hearing appeals by a board of adjustment. None of these devices for protecting the rights of land owners are readily available if a comprehensive plan is used to regulate specific land uses.

The subdivider can often find the comprehensive plan a useful resource to assist him in locating or designing a subdivision. Before purchasing land with subdivision in mind, or before proposing a subdivision on land he now owns, a prospective subdivider can review the physical resource information contained in the plan such as geology, soils, water, slope and so on. Before investing any money in a development a landowner can determine whether his property generally be satisfactory for building sites. By identifying areas unsatisfactory for residential development due to limitations such as flood hazard, poor geologic or soil conditions, steep slopes, high water table, polluted water supply and so on, the comprehensive plan can put potential subdividers on notice that subdivision proposals in these areas will probably be opposed by the local government. Conversely, the comprehensive plan can also be used to encourage development in suitable locations by indicating areas where no natural limitations to residential development exist.

By mapping the areas located in proximity to existing or proposed natural gas, electric and telephone service, schools, parks, fire stations, and major streets and roads, the comprehensive plan can be used to direct development to areas already receiving public services and thus reduce the costs to the community involved in providing services to scattered rural subdivisions.

The subdivider will also find that a comprehensive plan can be of very practical benefit to him. Montana's subdivision law provides that if a subdivision is proposed for an area which is covered by an adopted comprehensive plan and the subdivision is in compliance with the plan, the subdivider can be exempted from the completion of part of or all of the environmental assessment required for most subdivisions. The law includes this provision because it is not reasonable to ask the subdivider to gather information that has already been compiled in a comprehensive plan and is sufficient for proper public review.

Subdivision control and zoning are also directly related by the inclusion of a requirement in most local regulations that the subdivision conform to the requirements of the local zoning ordinance, if one has been adopted. The zoning ordinances may affect minimum lot areas and frontages and the type of improvements required for the subdivision. The application of a comprehensive plan and zoning controls to the subdivision review process underscore the interdependence of a community's planning program and land use regulations.

PART II:

THE FORM AND CONTENT OF SUBDIVISION REGULATIONS

Subdivision regulations have developed a fairly standard form from past experience. They are generally composed of five major parts:

- A. General Introductory Material and Definitions
- B. Review and Approval Procedures for Planning Boards and Governing Bodies
- C. Design and Improvement Standards
- D. Administrative Provisions
- E. Requirements for Form and Content of Plats

Within these five parts the community's requirements can be written as detailed as needed. Each of these parts is described in detail in the material which follows.

The State of Montana Model Subdivision Regulations have been prepared as a guide to assist local governments in preparing regulations and standards appropriate to their own needs. Discussion with the local citizens, businessmen, surveyors, developers and appropriate local, state and federal authorities is highly recommended during preparation of subdivision regulations.

A. GENERAL INTRODUCTORY MATERIAL AND DEFINITIONS

Subdivision regulations normally begin with sections on their title, legal authority, purposes, and jurisdiction. Within the purpose section the local governing body can be quite specific about the objectives of the community if it so desires.

Words and terms used in the regulations need an explanation that will be uniform throughout the entire document. The definition section performs this function. Most local regulations have the definition section placed at the beginning of the regulation for easy reference. Browsing through the definition section before reading the entire regulation will help the reader to gain a better understanding of the specific ideas and meanings included in subdivision regulations.

B. REVIEW AND APPROVAL PROCEDURES

To provide guidance to local governing bodies and planning boards and to protect the rights of those who wish to subdivide the Legislature has established procedures by which a preliminary plat is to be reviewed.

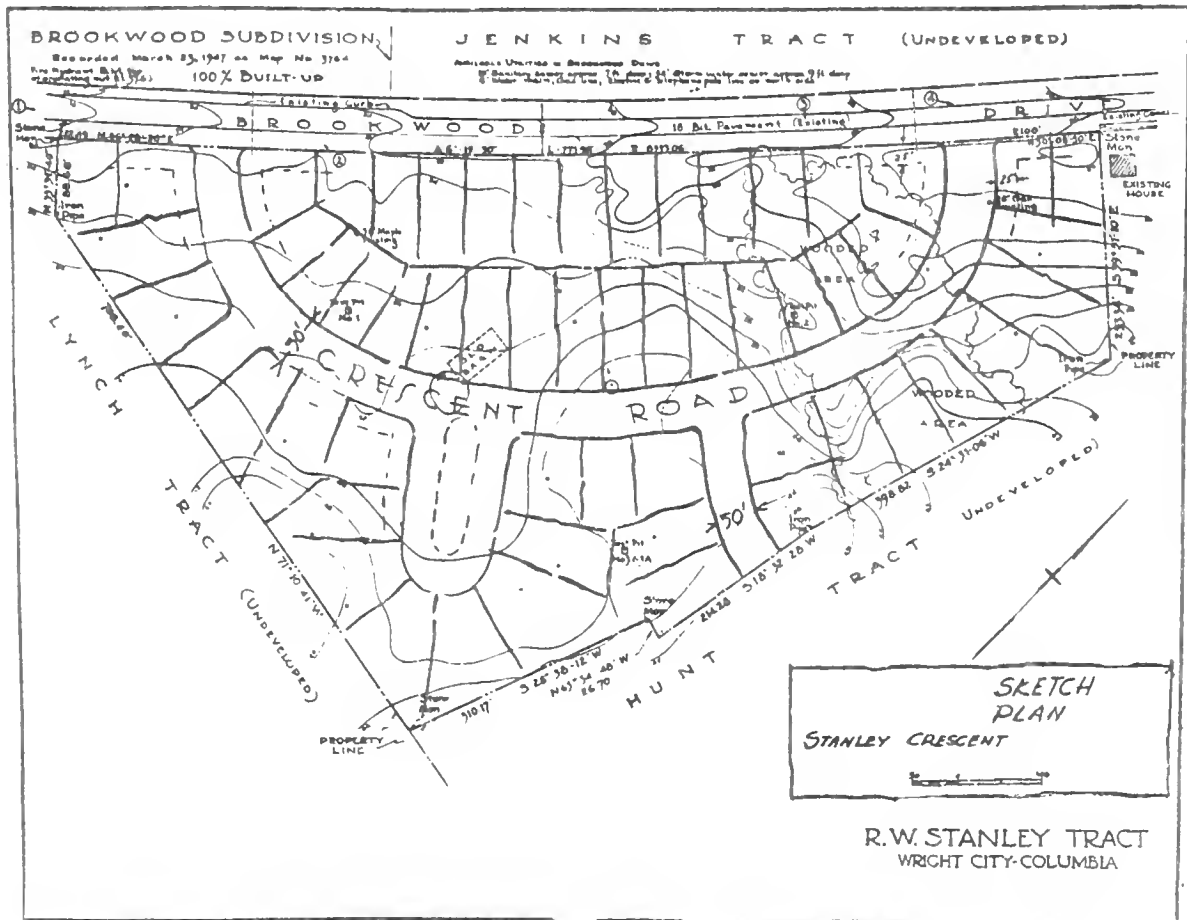
The steps in the review process are not designed to hamper a subdivider, nor to add unnecessary paper work to the local government's workload. Experience has shown that the required steps help to ensure that all the details are covered, checked, and approved. It also allows for adequate preparation on the part of both the subdivider and the local governing body in developing good quality subdivisions that meet the objectives of the subdivider and the community. A sample plat review timetable is shown on page 11. A detailed description of the steps in the standard review process follows:

1. PRE-APPLICATION MEETING

The subdivider is encouraged to have a "pre-application" meeting with the planning board before preparing a preliminary plat. The purpose of this meeting is to discuss the local regulations and standards and the proposed subdivision. The subdivider should provide a sketch plan of the proposed subdivision for review and discussion. The sketch plan should show in simple form the layout of the proposed subdivision in relation to the existing features of the property.

The sketch plan should include pertinent information such as: approximate tract and lot boundaries; location of easements, utilities, right-of-ways, proposed parks and open spaces, and a description of general terrain, natural features, existing structures and improvements, and proposed public improvements. The sketch plan also allows the board to properly relate the proposed subdivision to the overall area. The pre-application meeting is very important for the subdivider because it helps him to become familiar with local regulations and it also permits changes to be made in the proposed subdivision design before considerable time and money is invested. The meeting allows the planning board to make suggestions and helps to assure that design proposed in the preliminary plat will be acceptable to the governing body.

Sketch Plan of a proposed subdivision prepared for pre-application meeting with planning board (drawn on a topographic map.)



A Sample Plat Review Timetable

Before submitting a preliminary plat the subdivider has a pre-application meeting with planning board to discuss county subdivision regulations and the sketch plan for his proposed subdivision. Suggestions may be made to developer if any problems are apparent.

1st day: Regular Meeting of Planning Board

At a regular planning board meeting, the subdivider submits preliminary plat approval application form to secretary of the planning board together with copies of the preliminary plat and environmental assessment and the correct review fees.

Planning Board reviews preliminary plat application and fees to make sure they are correct. Uses preliminary plat checklist to make sure plat meets county regulations. May have brief discussion about subdivision at this time.

(This starts 60-day time period)

Public hearing date is set. Planning Board directs secretary to arrange for notice of public hearing to be printed in local newspaper 15 days before hearing. Also, the subdivider and people owning property adjacent to the subdivision must be notified. (Review fees can be used to help pay for advertising and for mailing of plats to reviewing agencies)

Within five days after meeting secretary mails seven copies of plat and environmental assessment to Division of Planning in Helena for distribution to state agencies. Secretary may also wish to send copies to local school, fire or conservation district, or to local office of the S.C.S., Forest Service or B.L.M. to get comments.

30th day: Next Regular Meeting of Planning Board

Public Hearing

- (a) Hearing opened.
- (b) Oral comments from those proposing and opposing the subdivision are received.
- (c) Written comments submitted by local and state agencies and interested citizens are received and read.
- (b) Board considers any other relevant information.
- (e) Hearing closed.

Board reviews and discusses the proposed subdivision and all comments received. Board makes decision and formulates recommendations to county commissioners. Within ten days sends written recommendations to commissioners to approve the preliminary plat as submitted, to approve subject to specific modifications, or to disapprove.

By 60th day: County commissioners must decide to approve, conditionally approve or disapprove the preliminary plat. If the commissioners disapprove or conditionally approve the subdivision they must send a letter to the subdivider stating why it was disapproved or listing the conditions which have to be met before the commissioners will give approval to the final plat. If the commissioners approve or conditionally approve the preliminary plat they must send the subdivider a dated and signed statement of approval.

(The 60 day review period can be extended only with the consent of the subdivider.)

Within one
year of
preliminary
plat approval:

Subdivider -

1. Makes required improvements or arranges improvement guarantee.
2. Receives approval from State Department of Health.
3. Submits final plat for approval.

Within 35 days
of receiving
final plat:

Planning board, examining land surveyor, county (city) attorney and governing body review final plat and supplementary documents.

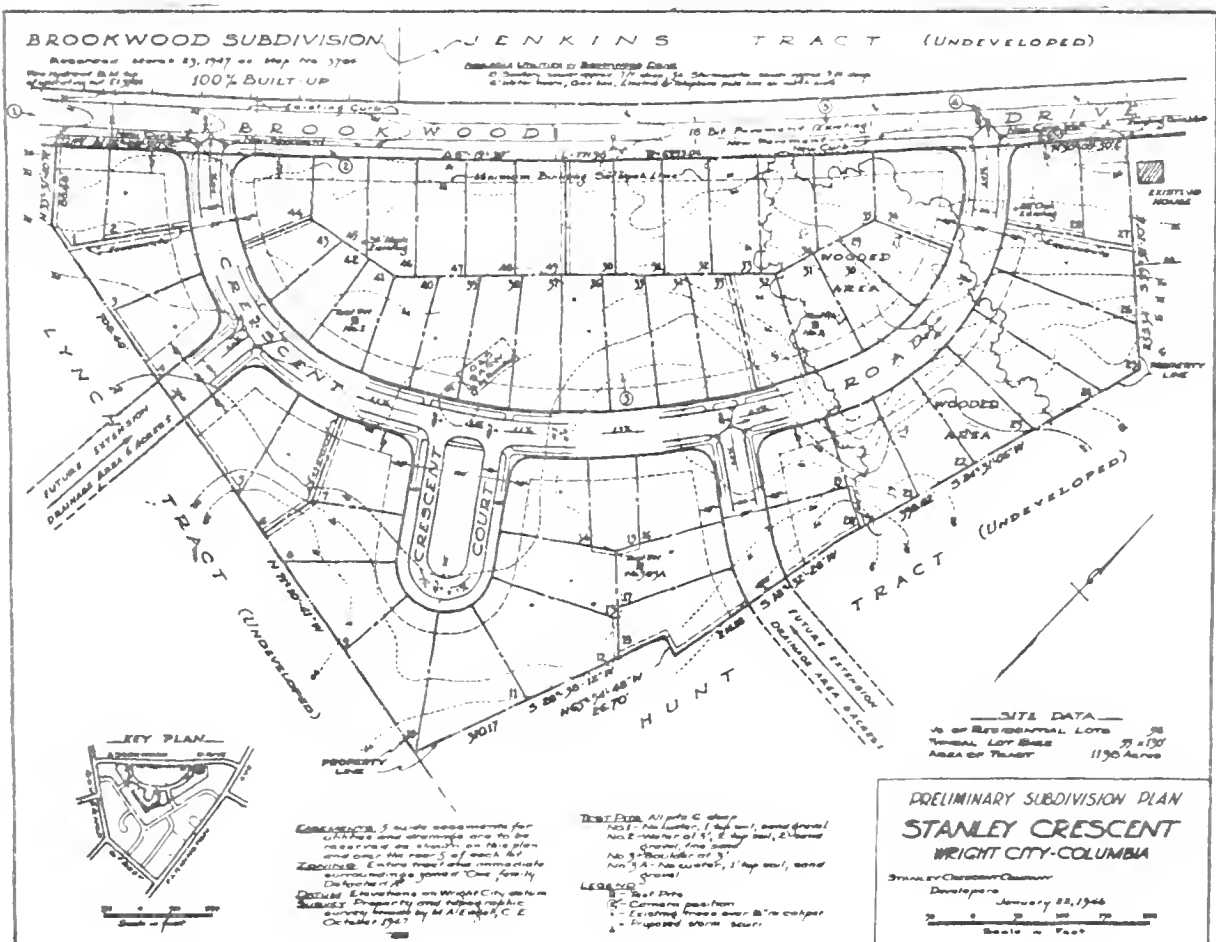
Within 10 days
of approving
final plat:

Governing body files final plat and supplementary documents with county clerk and recorder.

Subdivider may now begin selling lots.

2. SUBDIVIDER PREPARES PRELIMINARY PLAT

A preliminary plat is defined in the law as "a neat and scaled drawing of a proposed subdivision showing the layout of streets, alleys, lots, blocks and other elements of subdivision which furnish a basis for review by a governing body." The Montana Minimum Requirements for Local Subdivision Regulations include minimum requirements for the form and content of preliminary plats to assure that preliminary plats submitted to local governments and planning boards will contain sufficient information to allow adequate review. These minimum requirements include information such as boundaries, legal descriptions, street rights-of-way, easements for utilities, proposed improvements, ground contours, and so on. A contour map is particularly important because it reveals how the subdivision layout will relate to the natural terrain.



In addition to the preliminary plat itself, there is also a requirement for a "location map." This map is either a separate drawing or a small drawing in one corner of the preliminary plat. This map shows simply the location of the tract to be subdivided in relationship to the surrounding area. Using the location map the planning board can better understand the subdivision's relationship to the total community, and to various community facilities and services. An aerial photograph or a U.S.G.S. topographic map with the subdivision outlined may be used in place of a location map.



An important feature of the subdivision law is the requirement that for certain subdivisions the subdivider must prepare an assessment which provides information on the impact the development may have on the physical environment and on the services and facilities provided by the community.

Minor subdivisions (subdivisions with five or less parcels) are normally exempted from this requirement. The law also provides that subdivisions may be exempted from all or part of the assessment when a subdivision is proposed for an area which is covered by an adopted comprehensive plan and it is in compliance with the plan or where the proposed subdivision contains less than 10 parcels and less than 20 acres.

The assessment follows a questionnaire format, the content of which has been established by the Division of Planning. The questions ask for information which local and state agencies will need to effectively review the proposed subdivision. The first part of the questionnaire asks for information necessary to achieve the best design of the subdivision and includes sections on surface and ground water, geology, soils, slopes, vegetation, wildlife, historic sites and visual impact. The second part asks for information necessary to allow the community to plan for the public services which may be required and includes sections on water supply, sewage disposal, solid waste, roads, utilities, emergency services, schools, land use, and housing.

As required by the law, the Division of Planning established procedures for the review of preliminary plats and environmental assessments by state agencies interested in subdivision activity. In addition to the Division of Planning these agencies include the Bureau of Mines and Geology and the Departments of State Lands, Fish & Game, Highways, Natural Resources & Conservation, and Health & Environmental Sciences. The Division of Planning acts as a clearinghouse for this review by distributing copies of the plats and assessments to the state agencies and by maintaining a permanent file of all proposed subdivisions submitted for state agency review with each agency's comments. The state agencies have no veto power over any proposed subdivision. The function of this review is to provide assistance and advice to local governments and planning boards in reviewing proposed developments. The agencies frequently offer constructive suggestions for alternatives to the proposed design of the subdivision which can serve to reduce potential adverse environmental impacts. The goal of this review is to discourage development on lands unsuited for building sites and, where development is possible, to encourage that it be done with a minimum adverse impact on the environment and the community.

In addition to state agencies, copies of the plat and assessment should be sent to local agencies who may be able to provide valuable comment such as the local fire, school, or conservation district; the county road supervisor or city engineer. Local offices of Federal agencies such as the

Forest Service, Bureau of Land Management, and especially the Soil Conservation Service, may also provide advice.

The review process has been found to be especially useful those local governments and planning boards who do not have any professional staff to assist them. They have found that the assessment facilitates their review by gathering into a single document much of the information they need to properly evaluate a proposed subdivision. The assessment can also serve the subdivider by providing him a checklist of the basic concerns he should consider in designing and developing his subdivision.

The assessment is meant to be completed by the subdivider himself without assistance from consultants. The subdivider is asked to collect available information, not to do original research. Most of the information can be obtained from local, state and federal public agencies and affected public utilities. The format of the assessment and a list of possible information sources is contained in the Montana Model Subdivision Regulations.

3. SUBDIVIDER SUBMITS PRELIMINARY PLAT

The subdivider submits the preliminary plat to a person or office specified in the regulations. Often the planning board staff receives the application and plat, but any appropriate agent can be designated, such as the county clerk and recorder, an administrative assistant to the county commissioners or the planning board secretary.

The agent receiving the preliminary plat uses a checklist to ensure the subdivider is submitting all the required information. If the required information has been submitted and verified and all review fees paid the preliminary plat will be accepted and the 60 day review period begins.

4. PLANNING BOARD BEGINS REVIEW

- a. The office receiving the preliminary plat sends copies to local and state agencies and utilities serving the area for review. Review by these agencies is advisory only and intended to assist the planning board in making its recommendations.
- b. Where possible, planning staff personnel or board members should visit the site of the proposed subdivision to review the actual site. Many planning boards have established plat review subcommittees which make inspections of proposed subdivision sites. Taking pictures or slides can be very helpful to board members who were unable to visit the site to help them evaluate the plat.

- c. The board and its staff, if it has one, review and analyze the plat to assure that the design and improvement standards in the local regulations have been met. They ensure that each lot has a suitable building site, that roads meet local standards for width, curvature and grade, that proper access points are provided onto adjacent streets and roads, that areas are reserved for parks or playgrounds or that cash will be given in lieu of park land.

5. PUBLIC HEARING ON PRELIMINARY PLAT

A public hearing is held on a preliminary plat before the governing body makes its decision. The hearing is an opportunity to provide citizens with information on the plat and to receive public comment and reaction. To insure adequate public involvement the subdivision law requires that:

Notice of such hearing shall be given by publication in a newspaper of general circulation in the county not less than fifteen days prior to the date of the hearing. The subdivider and each property owner of record immediately adjoining the land included in the plat shall also be notified of the hearing by registered mail not less than fifteen days prior to the date of the hearing.

To help make the public aware of the proposed subdivision the planning board may also arrange for the posting of copies of the notice of the public hearing at conspicuous places on the boundaries of the tract.

The comments of reviewing agencies should be presented at the hearing so that the planning board has as much information as possible before making recommendations.

The hearing can be held at a regular monthly meeting of the planning board. The following list of steps is typical of those used at planning board hearings on subdivisions:

- (1) Chairman announces opening of hearing and explains purpose of hearing for those present.
- (2) Secretary reads notice of hearing as published in local newspaper.
- (3) Chairman orders notice placed in record.
- (4) Chairman gives floor to subdivider if he wishes to describe proposal.

(5) Reading of technical reports or comments from state or local agencies on proposal, if any.

(6) Reading of letters received on proposal, if any.

(7) Chairman gives floor to those persons in attendance who wish to comment or ask questions.

(8) Chairman moderates any discussion arising from comments or questions from persons in attendance.

(9) Chairman closes hearing.

A careful record of the hearing should be kept. Names of persons appearing and the gist of their opinions or comments should be included.

The planning board will find that these hearings are a useful means for obtaining additional information concerning the probable effects of the proposed subdivision on nearby properties as well as the area in general. Since each proposed subdivision will have a unique effect on its area, residents and owners of nearby properties may be able to suggest modifications that will improve the layout. It is the board's responsibility to weigh the information presented at the hearing and to determine whether or not the subdivision complies with the local subdivision regulations, the state law, and any local zoning ordinance. The board's action must always be based upon a review of these requirements and not upon the majority opinion of those present at the public hearing. There is no requirement that the planning board act on the proposed subdivision at the time of the public hearing, and in those cases where new information is obtained at the hearing, the board may wish to take time for a thorough consideration of all the facts.

The planning board must consider all relevant evidence relating to the public health, safety and welfare, including the environmental assessment and any officially adopted comprehensive plan for the area involved, to determine whether the plat should be approved, conditionally approved, or disapproved by the governing body. The planning board "shall act in an advisory capacity and recommend to the governing body the approval, conditional approval, or disapproval of the plat. This recommendation must be submitted to the governing body in writing not later than ten days after the public hearing." If recommending conditional approval the conditions which should be met must be specified. If disapproval is recommended the board must stipulate the reasons for disapproval.

6. GOVERNING BODY ACTS ON PRELIMINARY PLAT

After the planning board makes a recommendation, the governing body makes a final decision on the preliminary plat, approving, disapproving or conditionally approving it. This decision by the governing body must be made within sixty days after the plat was accepted for review unless the subdivider consents to an extension of the review period. The law contains specific procedures at this point:

If the governing body rejects or conditionally approves the preliminary plat, it shall forward one copy of the plat to the subdivider accompanied by a letter over the appropriate signature stating the reason for rejection or enumerating the conditions which must be met to assure approval of the final plat. Upon approving or conditionally approving a preliminary plat, the governing body shall provide the subdivider with a dated and signed statement of approval. This approval shall be in force for not more than one calendar year; at the end of this period the governing body may, at the request of the subdivider, extend its approval for no more than one calendar year.

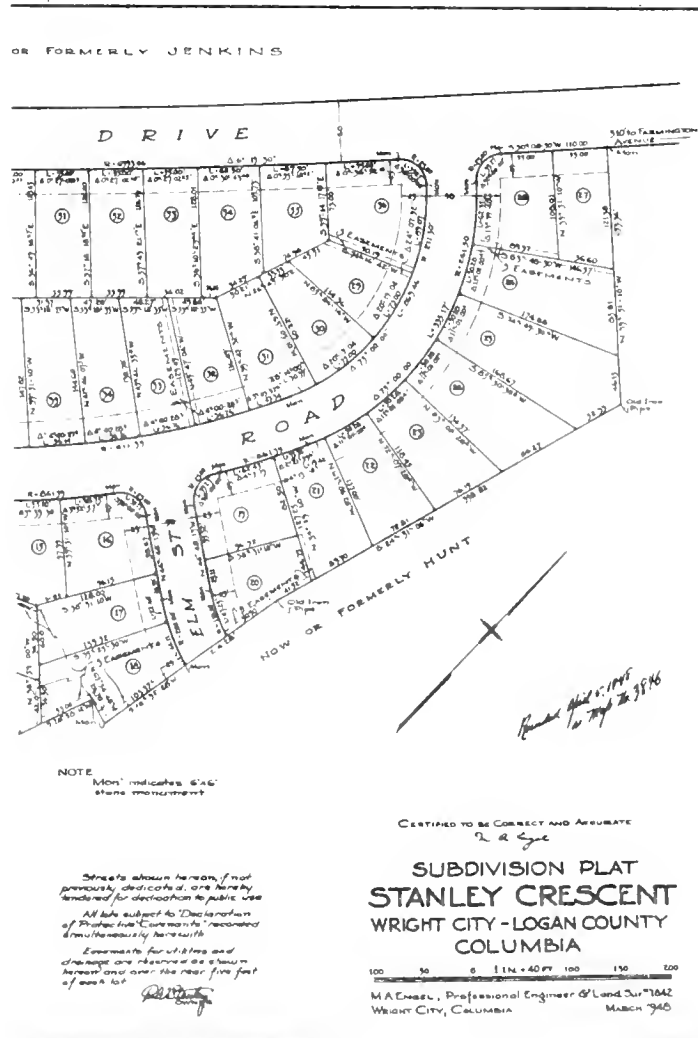
The preliminary plat review and approval is the most important step in the review process. Once the preliminary plat has been approved or conditionally approved the governing body cannot require the subdivider to make additional changes. The governing body must approve the final plat if it conforms to the approved preliminary plat and if the subdivider has met all the conditions and requirements.

7. SUBDIVIDER SUBMITS FINAL PLAT

After the approval or conditional approval of the preliminary plat, the subdivider has up to one year in which to prepare and submit a final plat. The boundaries, lot lines, roads and other improvements are surveyed by a registered land surveyor. A scaled drawing of the survey, showing the boundaries, lot lines, rights-of-ways, and placement of survey monuments is drafted as a final plat. As part of the requirements for approval of a final plat, a subdivider may be required to install some or all of the improvements, such as roads, water mains, sewer lines, gutters or other drainage facilities; or to ensure proper installation of the required improvements after the final plat is filed, the governing body can require the subdivider to post a performance bond or provide some other guarantee such as escrow agreements or establishment of a special improvement district.

Final Plat

A portion of a Final Plat is illustrated for comparison with the Preliminary Plat shown previously. The drawing shows the items generally included on Final Plats and is not intended to be an example of the required design standards or drafting techniques.



8. GOVERNING BODY ACTS ON FINAL PLAT

The governing body approves the final plat after it is satisfied that the plat conforms to the drafting, surveying, and monumentation requirements of state regulations, that the conditions of preliminary plat approval have been met, and that all improvements installation meets the standards set forth in the local regulations.

Before approving a final plat the governing body has the option of having the plats checked over by an examining surveyor to find any errors in calculation or drafting. The governing body may also have the abstract or certificate of title for the land reviewed by the county or city attorney.

After approval the governing body sends the final plat along with accompanying documents to the office of the county clerk and recorder for filing. The clerk examines the plat and documents to ensure that all necessary certifications are included, such as the Department of Health approval, as well as copies of any deed restrictions and plans or specifications for all required improvements.

When the clerk and recorder files the plat, the parcels shown on the plat become new lots on the public record and may be sold by reference to the plat.

Local regulations are also required to include procedures for the "summary" review and approval of "minor subdivisions," which are defined as "subdivisions containing five or fewer parcels where proper access to all lots is provided, where no land in the subdivision will be dedicated to public use as parks or playgrounds." As the word "summary" indicates such a subdivision is to be reviewed without delay or formality. In the summary review procedures contained in most local regulations this is achieved by exempting the subdivision from a public hearing and the subdivider from the preparation of an environmental assessment and preliminary plat. It is anticipated that this provision will receive considerable use. In many Montana communities the majority of subdivision activity and building site development has historically fallen into this category.

Condominiums are included within the definition of "subdivision" and plans of condominium developments must be reviewed and approved by the governing body before the development can proceed. The law excludes buildings to be held in condominium ownership from the subdivision review and approval process if they are to be built on platted lots approved for condominium use.

Mobile home parks and recreational vehicle parks are subdivisions under the law and must be approved by the governing body before they are developed. Because lots are not sold, surveying the individual mobile home spaces and the preparation and filing of a final plat is not required. A development plan of the mobile home or recreational vehicle park must be prepared and approved under the review procedures for a preliminary plat. Special design standards to be used in reviewing these types of developments are contained in the Montana Model Subdivision Regulations.

C. DESIGN AND IMPROVEMENT STANDARDS

Design and improvement standards are discussed in detail in Part III of this publication. A sample design and improvements standards section is contained in Part III of the State of Montana Model Subdivision Regulations which meets the requirements of subdivision law and the Minimum Requirements for Local Subdivision Regulations adopted by the Division of Planning.

D. ADMINISTRATIVE PROVISIONS

Usually covered under this section of subdivision regulations are review fees and fee schedules; procedures for allowing variances; provisions for penalties for violations; procedures for appeals of the governing body's decision, procedures for correcting, amending or vacating plats, and procedures for amending the local subdivision regulations. This section is usually brief. An example is contained in the Montana Model Subdivision Regulations.

E. REQUIREMENTS FOR FORM AND CONTENT OF FINAL PLATS

As directed by Section 11-3862 (5), R.C.M. 1947, of the Montana Subdivision and Platting Act, the Division of Planning, Department of Intergovernmental Relations, adopted uniform standards for survey monumentation and preparation of Final Plats and Certificates of Survey. These uniform standards were adopted into the Montana Administrative Code as part of the Minimum Requirements for Local Subdivision Regulations. These uniform standards went into effect in January, 1974 and were amended August 15, 1974.

These standards were drafted after consultation with many surveyors in Montana and especially with a committee from the Montana Association of Registered Land Surveyors. These requirements should be included in local subdivision regulations.

PART III:

SUBDIVISION DESIGN AND IMPROVEMENT STANDARDS

Good subdivision design requires an understanding of the basic elements that are important in creating functional, well balanced and esthetically pleasing neighborhoods. In addition to requiring technical skill in laying out the subdivision, the creation of a satisfactory development also requires coordinated action on the parts of the developer, planning board and other local officials.

It is not right of the local planning board or local government to restrict development by imposing unrealistic requirements on persons wishing to develop land. Their function is the review of proposed subdivisions to see that they fit into the community's needs and meet the standards adopted by the community for its future development. Since mistakes are often too expensive to correct after the development of a site has occurred, it is in the best interests of the community and its citizens that proper review is provided to achieve the most appropriate design for each site. The decisions made at the time of planning board review are basic policy decisions which may determine the community's future character. The desirability of the planning board having an adopted comprehensive plan to use as a guide in reviewing proposed subdivisions has been discussed previously.

Desirable development standards vary from community to community. It is necessary to study and evaluate local conditions and needs in advance of the adoption of development standards, to assure that they are tailored to the community. The accepted standards will appear in the subdivision regulations as minimums for new developments. Design standards are necessary to provide guidance to the subdivider and to make clear to him that certain minimums will be expected. Specific subdivision standards also protect the interests of the subdivider by helping to assure that his proposal will be reviewed and judged on an objective basis. It is important that these standards be written as clearly and precisely as possible.

A. BASIC SUBDIVISION DESIGNS

Prepared plans or pretty patterns should not be laid on any piece of land to create an instant subdivision. Each site requires a design according to its unique features and conditions. There are three general types of subdivision

designs: the grid system, the curvilinear system and the cluster. The "grid system" uses streets and lots at right angles and forms a grid pattern on the landscape. While the grid system was used as the basis for the design of most of Montana's cities and towns, it does have some real drawbacks. A grid design usually creates the greatest amount of street area, encourages through traffic, creates a maximum number of hazardous four-way intersections, and can become monotonous if used over a large area. The grid system is frequently satisfactory when used on relatively flat land but unfortunately, has often been applied to hilly areas best suited to other designs.

A second design is the "modified-grid or curvilinear system," which provides some bends or curves in the street and lot designs. With this method, the layout of lots and streets provides a little more variety, and can be better related to the natural features of the site. The curvilinear system can have a variety of shapes, yet in each one the similarity of right-angled lots, blocks and streets is evident. A curvilinear design can often provide better quality building sites while preserving more of the natural landscape.

The third general type of subdivision design is the "planned unit development," sometimes also called "cluster" or "open space" design. Instead of dividing an entire tract into large lots the subdivider organizes smaller lots into groups or clusters. The subdivider concentrates development in areas where topographic and soil conditions are most suitable, leaving less suitable areas in their natural state which at the same time often allows preservation of attractive natural features. The land area saved is then reserved for permanent, common open space. The most commonly used means of providing for the maintenance of the open space area and common facilities is to require the formation of a property owners' association. A major advantage of this design is its capability for allowing high quality subdivision with a minimum of costs. Good cluster design can save the subdivider many ordinary expenses of the other subdivision designs. The use of cul-de-sac streets to serve the residential clusters can frequently reduce the amount of streets necessary to serve individual lots, compared to conventional grid or curvilinear layouts. Shorter street lengths can result in lowered installation costs for streets and utilities and will result in long-term lowered maintenance costs for the residents and the community. These same savings can be used to provide better improvements and facilities or can be passed to the lot buyer in terms of lower cost for his building site or residence.

Basic Subdivision Designs

Grid Plan
94 lots, 12,000 feet
of streets and utilities



Curvilinear Plan
94 lots, 11,600 feet
of streets and utilities



Cluster Plan
94 lots, 6000 feet
of streets and utilities



Lot size in the first two cases is 50,000 square feet; in the third case, lot size is reduced to 30,000 square feet, with some 44 acres left open.

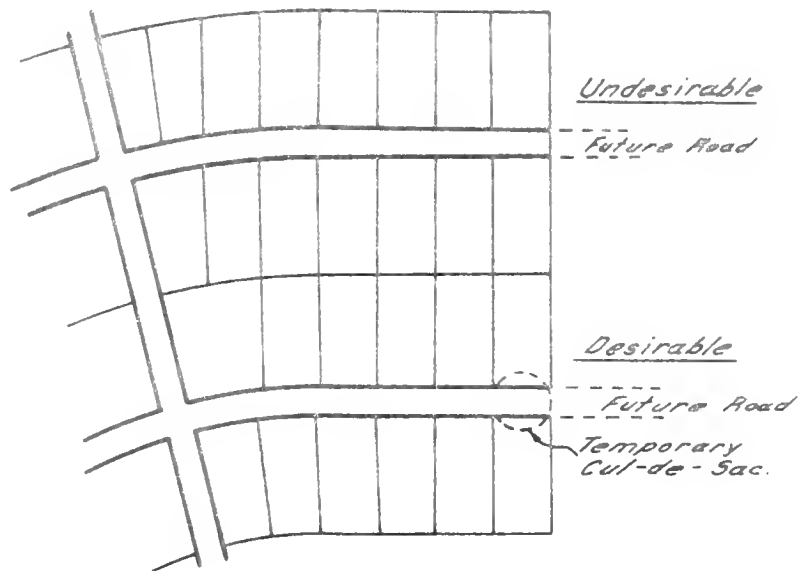
Design by Myron X. Feld,
planning engineer
"The American City"

In reality, most subdivision designs today use elements of all these general approaches. Much subdivision activity occurs in and around existing towns or cities and requires placement within an existing grid pattern. In rural or undeveloped areas, cluster developments are recommended for their more efficient use of space and utilities and their potential for preserving open space and natural landscape features.

B. EFFECT OF NEARBY DEVELOPMENT ON THE SITE

In designing any subdivision it is extremely important to consider the effect that nearby existing development will have on the site of a proposed subdivision. One obvious effect comes from the need to provide for the extension of roads from the adjoining developed area into the new one. In some cases, the new development will need to employ the streets in the older one as the means of access to it, and in others the older subdivision streets will provide a second means of access to the new subdivision. Experience has shown that there are some basic principles that should not be violated when new streets are being laid out adjacent to existing ones. One of these principles is that no development should be permitted at the end of a street which would block future access into land beyond it. Another principle is that the main means of access to a large subdivision (more than ten lots) should be provided from a street designed to carry a fairly high traffic load and should not be provided through a local street designed only for light traffic. If the community does not have a comprehensive plan that shows how these traffic routes are to be laid out and coordinated as the area is developed, common sense will often indicate where through traffic or collector street traffic is best routed. The planning board which has a master plan for traffic circulation will be in a better position to make sure that both new and existing development is not adversely affected by heavy or high-speed traffic.

When the subdivision design provides for a proposed street to be continued to the edge of a presently undeveloped area to allow for its future extension, it is desirable to require a temporary turn-around at the end of the street to provide convenient vehicular movement rather than just leave it a dead-end. Such excess right-of-way that may be required for the temporarily turn-around can revert to the abutting lots when the street is extended.



When a proposed subdivision lies next to an area already provided with public utilities, the extension of these systems becomes an important factor in designing the layout. Water mains and hydrants can usually follow street alignments and grades without serious problems, unless a significantly higher elevation is involved, which may call for some adjustment in water pressure. Sanitary sewers, however, normally rely on gravity flow, and the grades of streets will very definitely affect the adequacy and cost of this service. Pumping sewage should be avoided. Storm water drainage is a comparable service: it requires careful analysis to relate its requirements to the street system, the slopes of the individual lots, and the location of buildings. Developments increase water run-off because the new lawns, roofs, driveways, and paved streets prevent surface absorption. Storm water will need to be routed to some point or points on the perimeter of the subdivision where it can be carried away without adversely affecting neighboring property. Other connecting utilities and services needing study at the time of subdivision review are electric power, gas and in urban subdivisions, street lighting and sidewalks.

The relation of the subdivision to a nearby school or park should also be considered. Persons going to a park or children walking to school should be given a convenient and safe route.

C. EFFECT OF THE PHYSICAL CHARACTERISTICS OF THE SITE

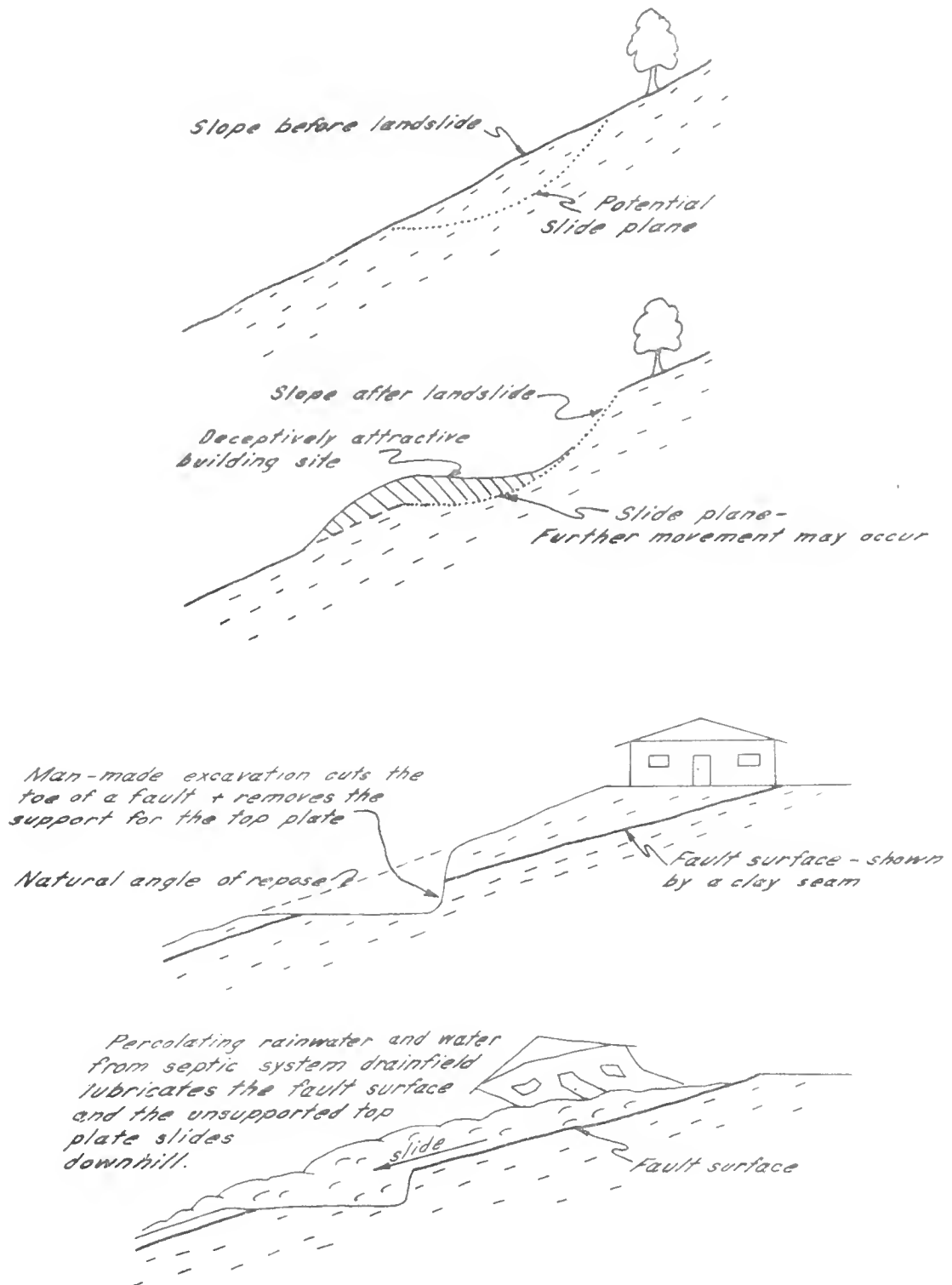
The effect of an area's physical characteristics is also an important factor which must be considered in designing any subdivision. When these characteristics are ignored, construction and maintenance costs can go up and long-term property values may be unstable or depreciate. When selecting land for development, careful consideration should be given to its slope, drainage and soils. In many cases these factors become so important that they determine whether development is even feasible. A common example is the case where the site has a steep slope which makes small lot development impractical because of the amount of expensive grading that would be required to provide satisfactory building sites and roads.

The subdivider should take advantage of trained engineering and planning services when he begins to design the layout of the subdivision. The engineer will normally make a topographic map his basic tool in laying out streets at acceptable grades and in providing a storm water drainage system that is adequate. A topographic map shows the elevations of the site by use of contour lines, and usually includes information about watercourses, rock outcrops, and other physical features of the site. Since the developer will normally need this type of map to make his plans, the planning board should require the subdivider to supply it with the preliminary plat. Where the land is steep, the topographic map will indicate how steep it is and will show where roads should not be built. Where land is very flat, the topographic map will show where there is a need to carefully design the drainage system to avoid future flooding or stagnant water.

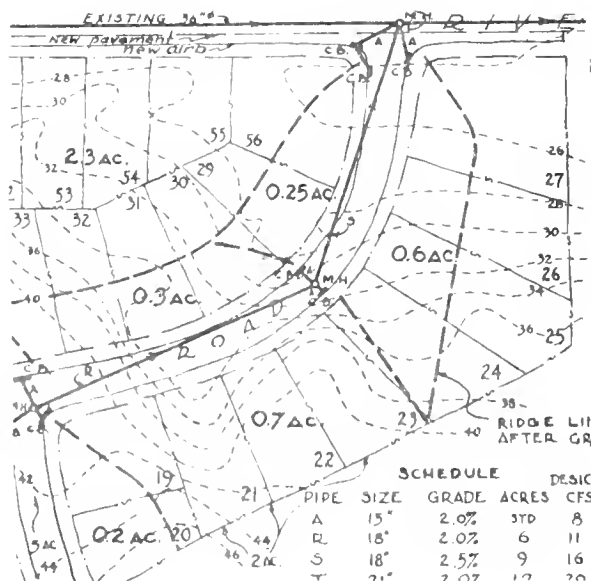
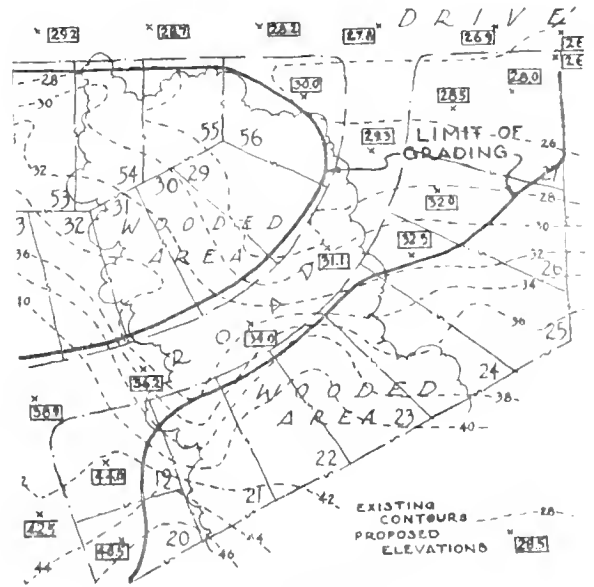
Specific information based on local experience and special study in the area of the site will be needed to determine how the water table, soil types, and bedrock structure will affect the proposed development. If the site will be served by on-lot septic systems or wells this type of data becomes absolutely essential, and it will be required by health authorities before they will approve any plans. This information will also help the subdivider and planning board to decide on the most practical type of road system, since surface or sub-surface rock can add greatly to the cost of road building, pipe laying, and building foundation work. A high water table may also severely limit a site's suitability for development.

Hazards Involved in Building on Steep Slopes

Information on the water table, soil types and bedrock structure must be carefully considered in evaluating a proposed subdivision site.

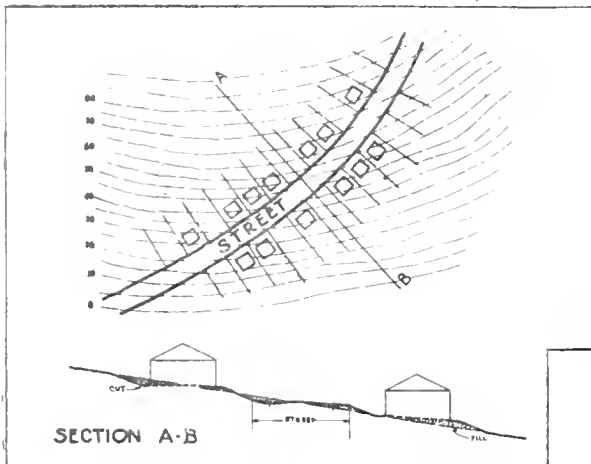


The drawing on the right shows how grading plans are prepared to indicate the final grades and elevations which will exist within a subdivision.



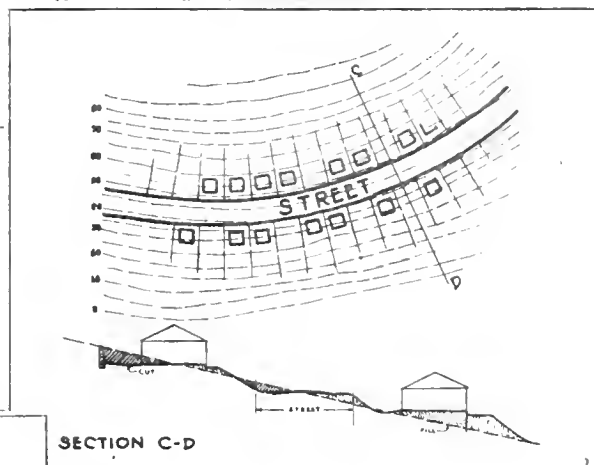
The plan on the left shows the proposal for providing drainage of surface water from a subdivision site.

Another important use of the topographic map is in street design. Natural slope and contour designing for streets is illustrated below.

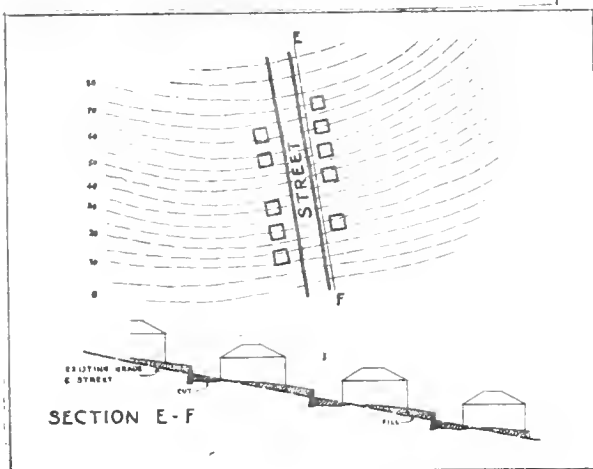


Where grades are steep, streets should be built diagonally across contours. This method provides a means for minimizing cut-and-fill operations and closely follows actual slope of the land.

Where streets parallel contours, level building sites require more cuts and fill; suitable building designs can overcome this problem.



Streets built at right angles to steep contours are of excessive grade; costly retaining walls are usually required.



Often one of the most valuable characteristics of a site is the view it has across neighboring lands to the horizon. The property with a good view is desirable if the view is pleasing and the lot and houses are laid out to make use of the view. However, excellent views are often wasted when the developer fails to locate the streets and houses in a way that will allow residents to actually see the view. While a planning board is not in the business of designing individual house layouts, it often can persuade the builder to use this valuable resource more fully. When the view is toward unattractive commercial or industrial areas, the lot layout should be modified to minimize this effect.

A common complaint about new subdivisions, particularly those that have a large number of lots and houses, is that they are barren of trees. The preservation of existing healthy and well-sited trees that are already on the site is important. Trees are an asset because they increase the value of the lots and make the new subdivision more attractive from the beginning.

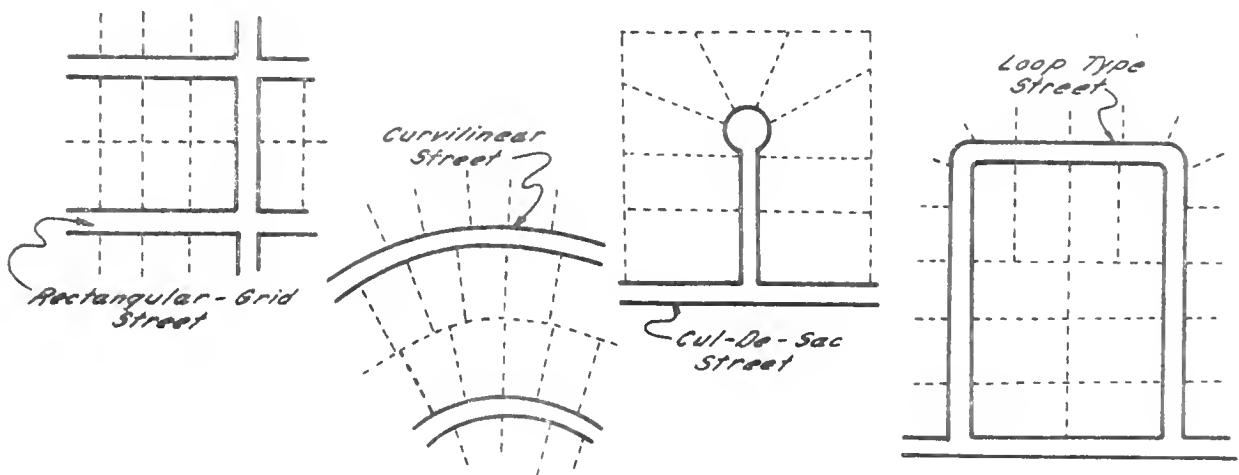
If the site proposed for subdivision has watercourses, ponds, or other terrain features that can contribute to the beauty of its layout, it is important to see that as many of these as possible are preserved. Many sites for new subdivisions have formerly been active ranches or had other rural uses that leave on the land certain man-made features that can be used to advantage in subdivision design. Examples of these are fences, orchards, ponds, roads, or trees.

D. STREET AND LOT LAYOUT

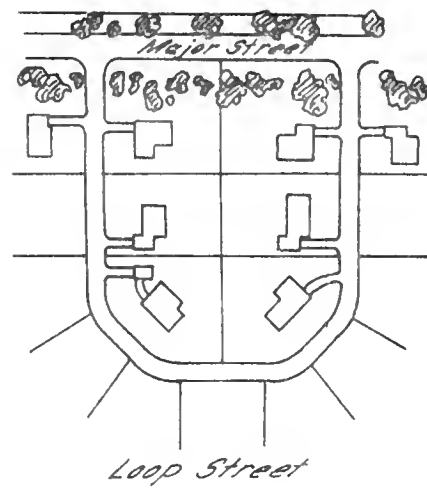
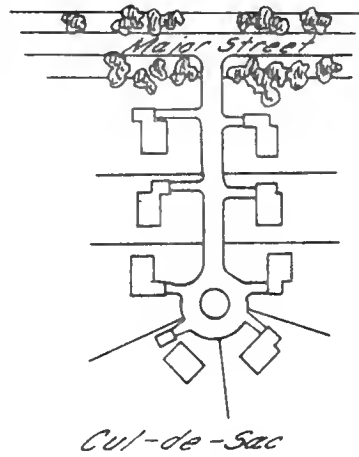
Subdivision street systems ideally reveal four conditions: (1) the streets allow safe and convenient access to each building area or site; (2) each street's function is evident; (3) the streets are placed on the natural landscape with minimum impact; and (4) the street layout is coordinated to traffic circulation patterns and community plans. The prime function of residential streets is to provide access to individual properties, to accommodate their prospective traffic and to allow the convenient entry of fire fighting, snow removal and road maintenance equipment. Streets should also be related to the topography and be coordinated into a system where each street performs the function for which it is intended. The function that a street is intended to serve will determine both its right-of-way width and its pavement width. A local residential street that serves a relatively low density residential area may need less pavement width than if the same street served higher concentrations of residential development. This results from both the lower

volumes of traffic on the street and from the resultant lower incidence of on-street parking. Collector and arterial streets carry progressively higher amounts of traffic than local residential streets. This fact should also be reflected in the criteria used for determining proper street surface and base. Other considerations affecting street right-of-way width are sidewalks, planting strips, and utilities, including street lights and fire hydrants.

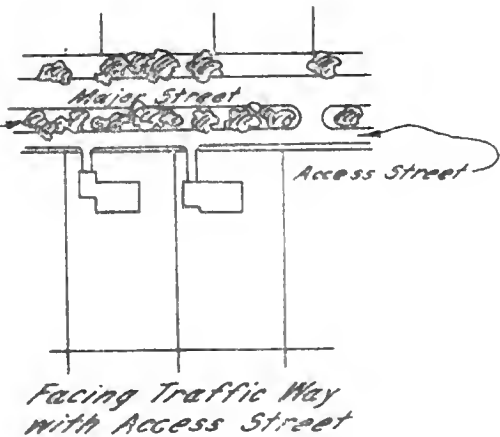
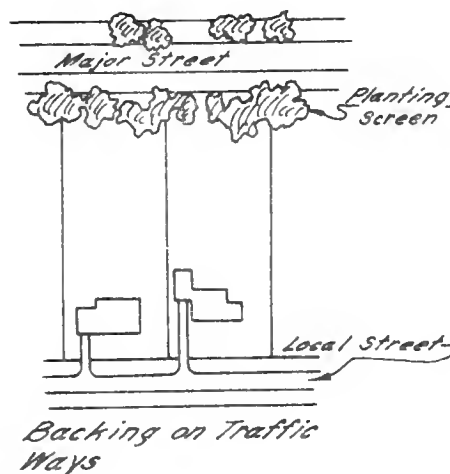
The volume and speed of vehicular traffic on a street can be influenced by the design of the street system. A rectangular or grid street pattern usually does not include a collector or secondary street system and tends to make each local street as important as the next. This encourages through traffic at higher speeds on each street and also creates many potential traffic conflict points at the four-way intersections. One of the most trouble-free designs for a residential street is a "loop street" which provides convenient access to each lot without encouraging through traffic.



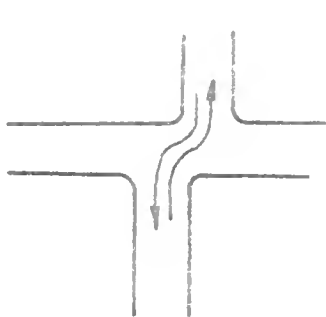
The "cul-de-sac" street can also be used to advantage in residential subdivisions. Through traffic is completely eliminated because there is only one entrance into the street. This creates an added sense of privacy, safety and value to the lots fronting on this street. The major drawback of a cul-de-sac street is that traffic at the open end can become undesirably high if the street is too long and access to a large number of homes is provided. These streets should have turn-arounds at their closed ends that are wide enough to permit vehicles to negotiate the turn without the need for backing, particularly larger vehicles such as delivery vans, snow plows and fire trucks.



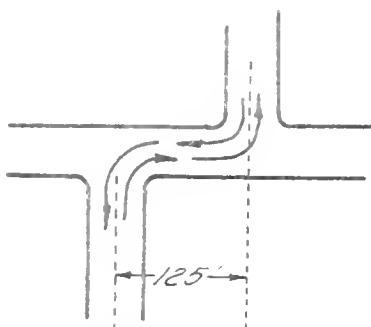
When residential development occurs along major streets and other highly traveled traffic arteries, special consideration must be given to the design. Lots should not front directly on or have direct access to such streets. When this occurs traffic hazards are increased and the efficiency of these streets is reduced because they are no longer able to smoothly carry the traffic volumes for which they were designed. This problem can usually be solved by either building a frontage access street (service road) or by backing the lots up to the major street. The frontage access street provides frontage for the individual lots and greatly reduces the number of points of access to the major street. When a landscaped buffer strip is provided between the frontage access street and the major street, the traffic noise will be reduced and more privacy provided. In cases where the backs of lots abut major streets, privacy can be increased by providing a landscaped buffer zone or planting screen between the major street and the rear property line.



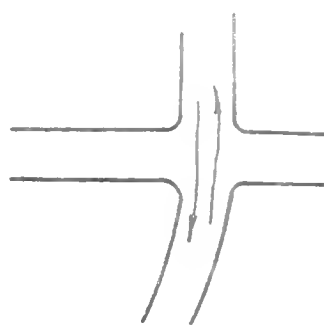
Intersections are another important element of street design. Where improperly designed, street intersections become potential traffic hazards. Streets should intersect at right angles. The centerlines of off-set street intersections should be far enough apart so that traffic is deterred from cutting diagonally across them. Intersections should occur on straight sections of street instead of curves, and should have gentle grades rather than steep slopes. Four-way intersections should be avoided except at the crossing of collector or major streets where traffic control devices are utilized.



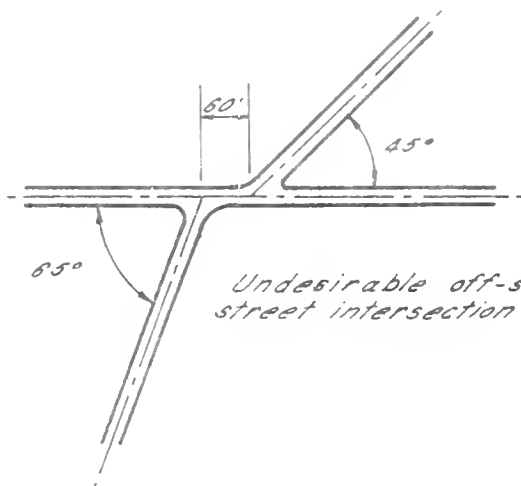
Poor
The dangerous jog intersection forcing precarious turning movements.



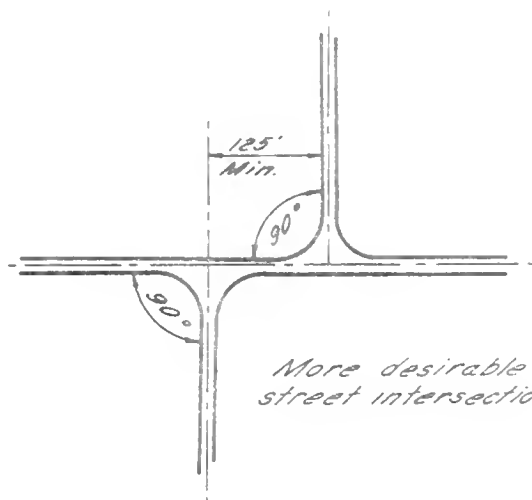
Minimum
Intersections which cannot be aligned should be separated by a minimum of 125 feet between centerlines.



Better
By slightly curving one of the unaligned intersecting streets, a dangerous jog can be avoided.



Undesirable off-set street intersection

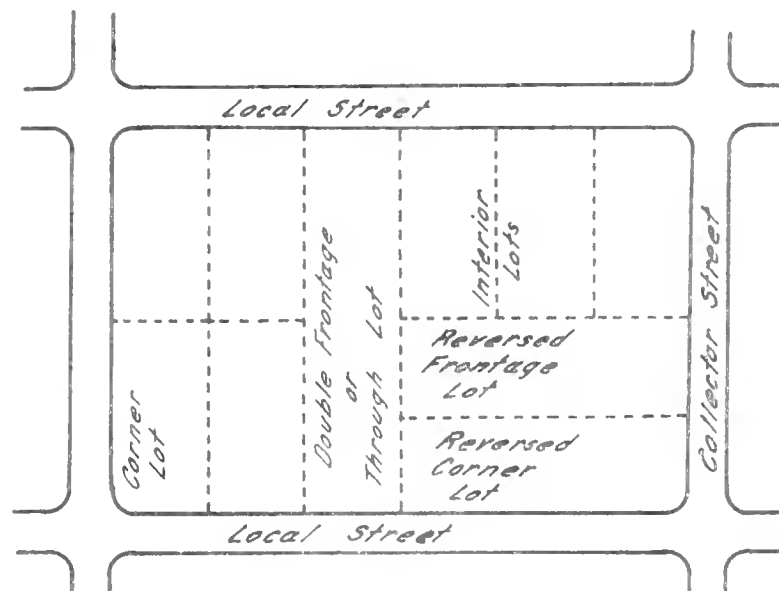


More desirable street intersection

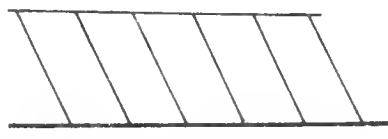
The blocks which make up a subdivision are inherently related to the street patterns. Although the number of intersections should be kept to a minimum, it is necessary to limit block length in order to permit adequate vehicular and pedestrian circulation within the subdivision and to reduce vehicle speeds on local streets. In situations where excessive block length is unavoidable, such as under unusual topographic or drainage conditions, a right-of-way of easement for pedestrians should be provided across the block.

The lot layout and street arrangement in a subdivision are so closely interrelated that one cannot be planned without considering its effect on the other. Once the general lot size and dimension requirements have been determined, a street system can then be designed to allow for the development of a desirable lot layout. In order to create a desirable home site which can be developed economically, several factors must be considered and certain general principles should be followed when lots are being laid out.

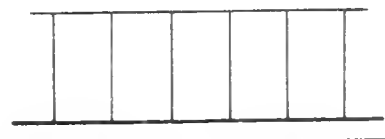
Good trees and other desirable natural growth should be preserved and the amount of grading kept to a minimum. Generally it is preferable for the lot elevation to be somewhat higher than that of the abutting street. The grade between the street and the house location on the lot should not be excessive but should be enough to provide good surface drainage to the street. Each lot should provide a desirable building site which allows adequate space for side yards and a driveway. It should be deep enough to allow for proper building setback and provide some space for outdoor activities. Lot dimensions are usually established in both zoning and subdivision regulations. Experience indicates that a lot width of sixty feet for a single family structure is generally a minimum. Experience has also proven that lot depth normally need not be greater than three times the lot width.



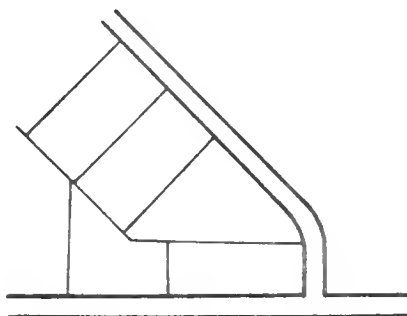
The size and shape of the individual lot is often influenced by the type and size of dwelling anticipated for the development. This is especially true when the subdivider will also be the home builder. Rectangular lots are generally the most usable. However, topography, street layout and the shape of the original parcel often require the creation of lots which are not rectangular. When this occurs, odd shaped lots with excessive jogs and corners should be avoided. Whenever possible, side lot lines should be perpendicular to straight streets or radial to curved streets. Corner lots that are too small do not provide an adequate building site. Generally, corner lots should be larger than interior lots to allow for sufficient setback from each street and provide a more useable backyard. Lots should front on local streets so as not to interfere with traffic flows. Reversed and through lots are discouraged.



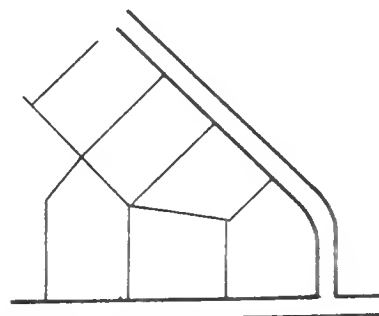
*Undesirable Angled
Lots*



*More Desirable
Lots*

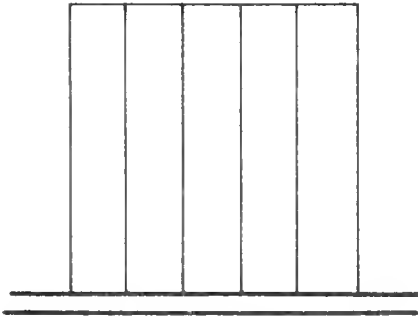


*Undesirable Corner Lot
with Awkward Lot
Shape Behind*

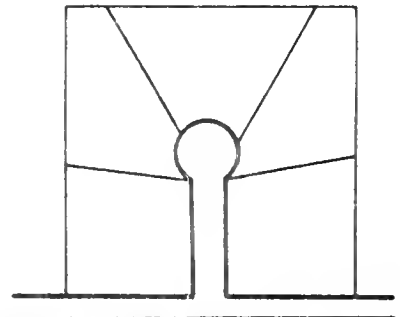


*More Desirable
Building Lot Shapes*

When developing an odd shaped tract of land fronting on an existing road, creation of excessively deep lots should be avoided. Use of short cul-de-sac streets can often facilitate development of the tract into more desirable lots.



Excessively Deep lots

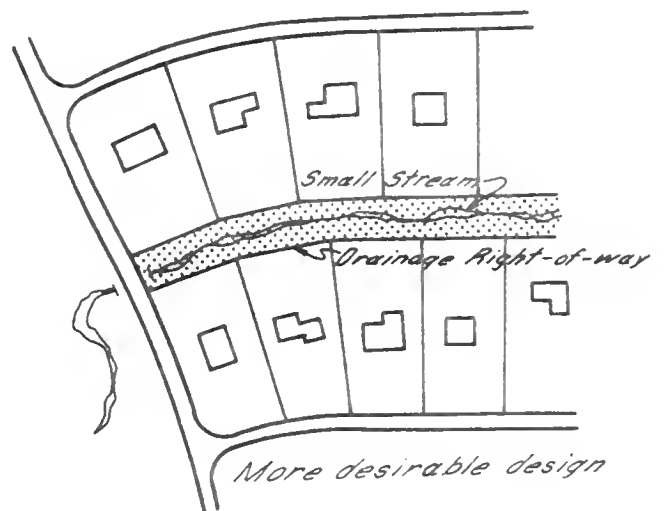
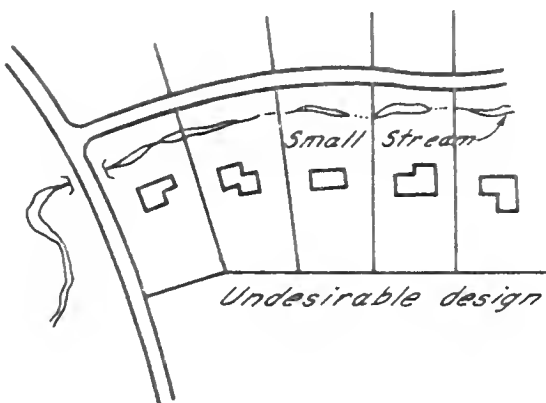
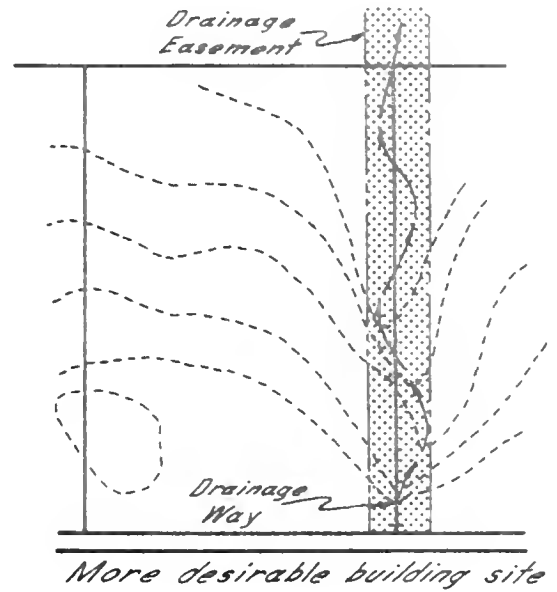
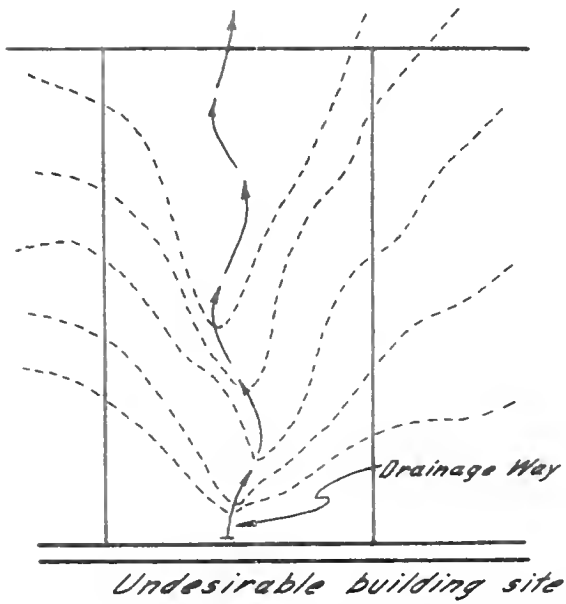


*More desirable lots
with use of a Cul-de-sac.*

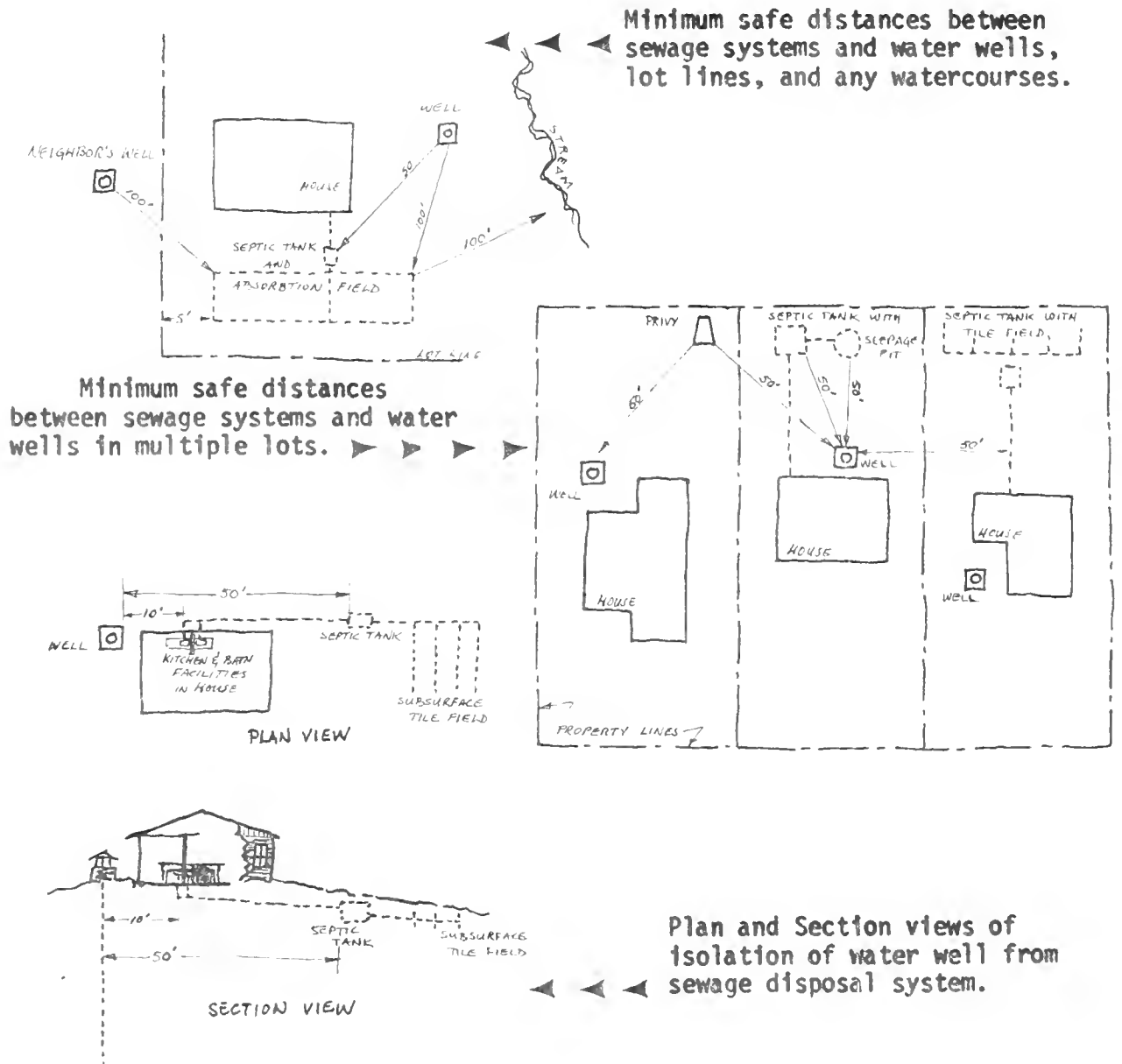
A subdivision site which is crossed by a small drainage way or a small stream often requires special consideration. The lots should be laid out so that the drainage way will not be near the center of a lot. More desirable and useable lots can be created by letting the side lot line follow the center of the drainage way and by providing an adequate easement on each side of this line for drainage purposes. The lot width should be increased to allow the easement and still provide a suitable building site.

A small stream may require a different treatment from that used for a small drainage way. When a small stream crosses a subdivision site, desirable lots can be created by providing a drainage right-of-way or easement on each side of the stream and backing the lots up to it. This approach preserves the stream bed in its natural state, provides continuous public or private open space and eliminates the need for costly driveway culverts which would be required if lots were fronted on the stream.

Designing for Drainage Ways and Streams



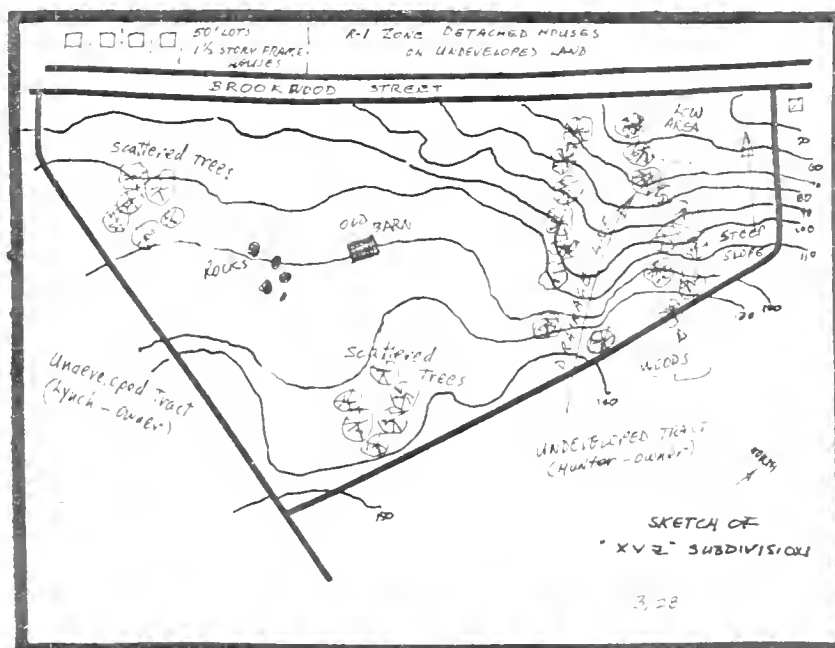
Montana Department of Health regulations for water and sewer facilities in subdivisions may also affect building site location and lot layout. Current regulations require a minimum of one acre where individual water supply and sewage systems will be used for each lot. Unfavorable soil or topographic conditions may make even larger lots necessary. Some sample illustrations are provided:



E. SUBDIVISION DESIGN PROCEDURES

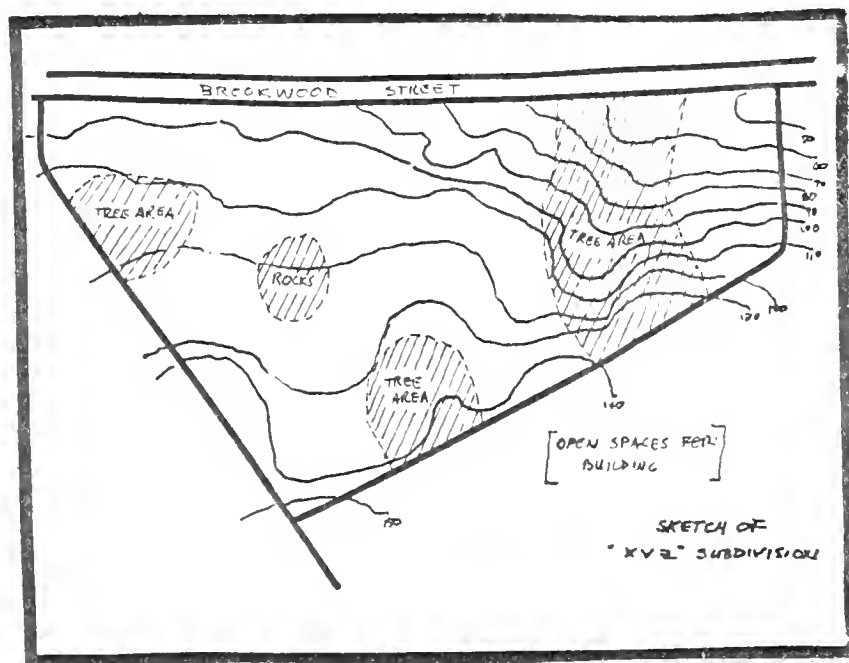
The three general types of subdivision design have their advantages and disadvantages: the variations available within the three can provide for desirable subdivision. A major concern of the subdivider is to obtain the greatest return for his investment. With this in mind, the local government can encourage the subdivider to provide the type of design that allows for the most return while providing for future property owners' needs and the community's desires. Professional assistance is recommended from the beginning, both for the subdivider and the local governing body. The initial costs for such services can be saved by the subdivider in lower construction costs and increased marketability for his lots, and by the community in lower maintenance costs and more stable property values. There is a general procedure for planning and designing subdivisions which can help to assure attractive and better quality residential developments.

Step 1. The first step is prepare a sketch of the property boundaries, the site contours and slopes, drainage, soils information, natural features and existing man-made features on a sheet of suitable size and scale. This map should show enough of the surrounding property to indicate the subdivision's location.



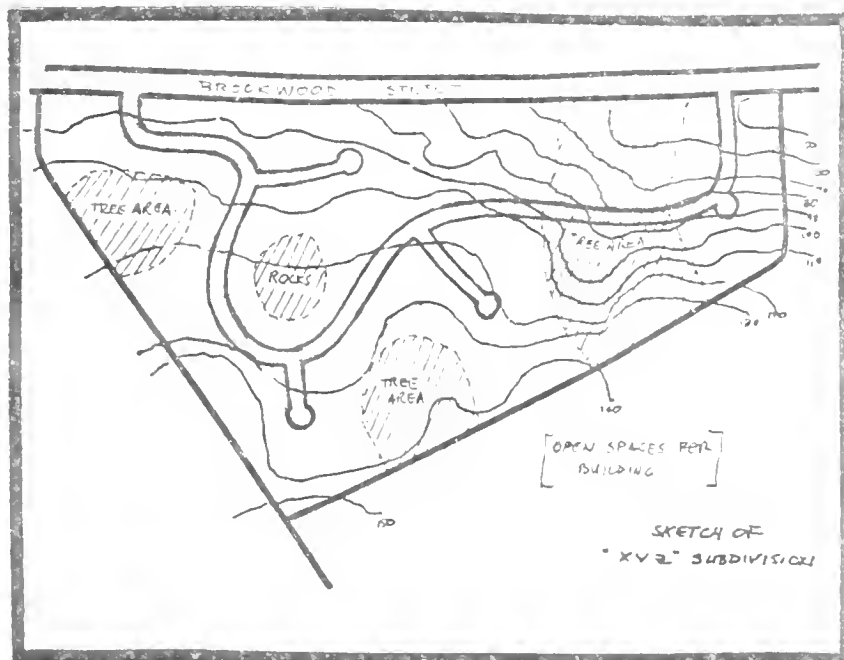
Sketch Map

Step 2. Next, determine those areas where structures or buildings might be placed with as little site improvement as possible. This is a crucial point in subdivision design the sketch should only show the areas proposed for buildings. The lot lines themselves are determined later after thorough consideration. The object of subdividing is to provide desirable building sites, and not simply to divide the land into lots.



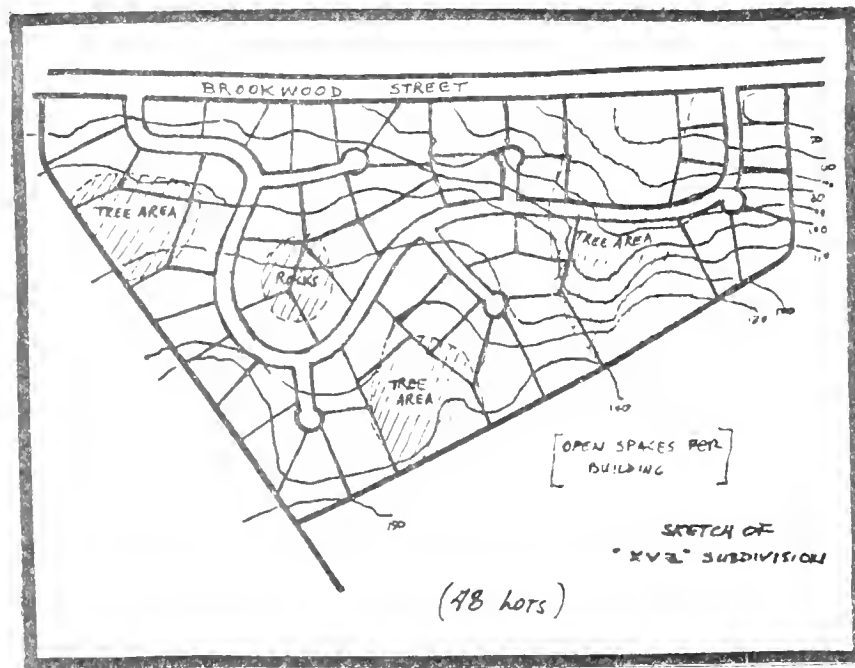
Sketch Map Showing Building Areas

Step 3. Next is to lay out the streets to provide proper access to the proposed building areas. Grading, cut-and-fill, or other alterations of the natural landscape should be minimized. For example, streets are designed to follow the contours as nearly as possible, not directly against them, thereby reducing the construction and maintenance costs. This approach to subdivision site planning can also keep to preserve the natural character of the land.



Sketch of Building Areas and Streets

Step 4. With the building areas located and the access streets sketched-in, the lots are then roughed in. Several attempts may be needed to properly lay out the lot lines. The lot design may require certain adjustments to street location and minor alteration of the natural terrain. From this drawing a sketch plan of the proposed subdivision design is prepared to use at the pre-application meeting with the planning board.



Sketch of Street And Lot Layout

F. CONTROLLING THE COST OF IMPROVEMENTS AND MAINTENANCE

The development of a desirable street arrangement and lot layout is essential if the subdivision is to become an asset to the community. However, this alone is not enough. Adequate street improvements, utilities and drainage facilities must be installed and certain community facilities provided. Subdividers are required to provide for acceptable street improvements in their subdivisions. If the proper standards of design have been used, and the highest quality of construction maintained, the original cost and annual upkeep will, over the long run, prove cheaper than cutting costs by inadequate design and construction. A low-cost street base and pavement, while reducing the developer's cost for an improved lot, will last only a few years, and the community or lot owners will have to pay the costs of expensive annual maintenance. In order to perform the job of obtaining good improvements in new developments, the planning board should be provided with the tools for the job. First of these tools are modern road and drainage design standards and specifications, adapted to the needs of the community and the character of the proposed subdivision. The county road superintendent or city engineer should be involved in drafting these requirements, and will be able to suggest many of the standards needed.

A second tool needed in the planning board's review of street improvements is competent engineering advice on the plans prepared by subdividers. Someone must see that these standards are in fact met and inspect the work done to see that it meets the requirements. Private utility facilities should be designed by the companies that will provide the service.

Many subdivision layouts are not designed to insure the most economical provision of street improvements. In fact, many planning boards have re-designed layouts to reduce the lengths of streets without sacrificing the number of lots. Specific examples of uneconomic layout include excessive street pavement due to short blocks, excessive road construction costs due to steep grades requiring cuts, poor lot layouts resulting in unsaleable lots such as corner lots which are too small, odd-shaped lots without a good building site, and the improper use of wet or rocky areas, or land otherwise poorly suited to development. Proper layout of the new subdivision will obtain the most value for the least amount of street. This will reduce over-all street maintenance costs -- such as resurfacing and snow plowing. In addition to street length, street grade will affect maintenance and servicing costs. Steep grades can cause hazards and virtual road blocks during adverse weather conditions. The cumulative savings from proper street layout can amount to an impressive sum over a period of years.

Experience indicates that time and effort spent by both the subdivider and the planning board on careful site analysis at the beginning of a subdivision will save money during construction and after it is complete. Strict application of the proper standards for improvements will result in lower maintenance costs, and a quality of development that will show higher and more stable property values.

G. SUBDIVISION IMPROVEMENT GUARANTEES

Montana's subdivision law provides that local governing bodies may require subdivision improvement guarantees to assure that all required improvements will be installed by the subdivider within a reasonable time and in a manner which meets local design standards. A subdivider's failure to properly install improvements may cause a subdivision to become blighted and to detract from the value of neighboring properties, in addition to becoming a tax liability itself. The local government may also receive considerable pressure from property owners in the subdivision to install the needed improvements at community expense. A number of alternative methods to guarantee subdivision improvements are discussed in Appendix B of the Montana Model Subdivision Regulations.

H. NON-RESIDENTIAL SUBDIVISIONS

The great majority of subdivisions involve the creation of new lots used as the sites for single-family homes. A small number of subdivisions are created when multiple dwellings are built and a new lot or street is created. A few are completely non-residential in character such as industrial parks. These need to be reviewed from the standpoint of the standards of business or industrial development desired in the community. A non-residential subdivision should be designed to take care of the business and industrial traffic it attracts or produces, the employee and visitor parking areas needed, the necessary truck access and loading space required, and should have lot sizes large enough to permit placement of buildings properly on each lot. Street improvements, water and sewer facilities and other services will need to be considered in a manner comparable to that of the residential subdivision.

PART IV:

ADOPTING SUBDIVISION REGULATIONS

Under the provisions of the Montana Subdivision and Platting Act (sections 11-3859 through 11-3876, R.C.M. 1947) the governing body of each county, city and town was required to adopt subdivision regulations before July 1, 1974. Recommended procedures for adopting regulations are set forth below.

A. For governing bodies without an appointed planning board, the suggested procedures are:

1. Governing body prepares draft subdivision regulations and has copies available for inspection and distribution to concerned citizens and organizations.
2. Governing body submits the proposed regulations to the Division of Planning for review.
3. Governing body schedules a public hearing on the proposed regulations, giving public notice of the governing body's intent to adopt subdivision regulations and of the hearing by publication of a notice of the time and place of the hearing in a newspaper of general circulation in the county not less than fifteen (15) nor more than thirty (30) days prior to the date of the hearing.
4. Governing body holds public hearing.
5. Governing body reviews the regulations, comments from the public hearing and other sources and prepares a final set of subdivision regulations for adoption;
6. Governing body adopts final subdivision regulations by resolution or ordinance, and files a certified copy of these in the county clerk and recorder's office.

B. For governing bodies with an appointed planning board, the suggested procedures are:

1. Planning board prepares draft subdivision regulations and provides copies for inspection and distribution to concerned citizens and organizations.
2. Planning boards submits the proposed regulations to the Division of Planning for review.

3. Planning board schedules a public hearing on the proposed regulations, giving public notice of governing body's intent to adopt subdivision regulations and of the hearing by publishing a notice of the time and place of the hearing in a newspaper of general circulation in the county not less than fifteen (15) nor more than thirty (30) days prior to the date of the hearing.

4. Planning board presents the proposed regulations at the public hearing giving the background of their preparation and a review of the major sections of the regulations.

5. Following public hearing planning board reviews the proposed regulations with reference to the comments received. The board then prepares a final set of subdivision regulations and recommends these to the governing body for adoption.

6. Governing body reviews the regulations and comments from the public hearing and any other sources. The governing body may revise the proposed regulations as they deem necessary.

7. Governing body adopts the final subdivision regulations by resolution or ordinance, and files a certified copy with the county clerk and recorder's office.

Subdivision Reference Materials

1. Bair, Frederick H. Bair, Jr. Regulation of Modular Housing with Special Emphasis on Mobile Homes, (Planning Advisory Service Report No. 271) (Chicago, Ill.: American Society of Planning Officials, c. 1971.)
2. The Gallatin Area: A Summary Report, (Bulletin 344), Montana State University Bozeman, 1974.
3. Goodman, William I. and Freund, Eric Principles and Practices of Urban Planning, (Washington, D.C., International City Managers Association, c. 1968.)
4. Impacts of Large - Recreational Developments Upon Semi-Primitive Environments: The Gallatin Canyon Case Study, (Research Report 66), Montana State University, Bozeman, 1974.)
5. Lynch, Kevin, Site Planning. (Cambridge, Mass.: M.I.T. Press, 1962.)
6. Montana Model Subdivision Regulations (GP 107), Montana Department of Intergovernmental Relations - Planning Division, Helena, September 1974.
7. Porter, Kenneth F., Torgrimson, Tina, Ponderosa Pines Ranch: A Subdivision Case Study, Montana Environmental Quality Council, Helena, 1974.
8. The Ravalli County Subdivision Inventory, Montana Department of Intergovernmental Relations - Planning Division, Helena, 1973.
9. A Resource Inventory Method for Land Use Planning in Montana. Montana Department of Natural Resources and Conservation, Helena, 1973.
10. Rogal, Brian, Subdivision Improvement Guarantees, (Planning Advisory Service Report No. 298) Chicago, Ill.; American Society of Planning Officials, c. 1974.)

11. So, Frank S., Mosen, David R. and Bangs, Frank S. Planned Unit Development Ordinances (Planning Advisory Service Report No. 291), (Chicago, Ill.: American Society of Planning Officials, c. 1973.)
12. Torgrimson, Tina, A Perspective on Subdivision Activity in Montana's Bitterroot Valley, Montana Environment Quality Council, Helena, 1973.
13. Tunnard, C., and B. Puschkarev, Man-Made American: Chaos or Control. (New Haven, Conn.; Yale University Press, 1963.)
14. Urban Land Institute. The Community Builder's Handbook. (Washington, D.C.: The Institute, Anniversary edition, 1968.)
15. Way, Douglas, S., Terrain Analysis: A Guide to Site Selection Using Aerial Photographic Interpretation, (Stroudsburg, Pa.; Dowden, Hutchinson and Ross, c. 1973.)
16. Whyte, William H. Cluster Development. (New York, N.Y.; American Conservation Association, 1964.)
17. Yearwood, Richard M., Land Subdivision Regulation: Policy and Legal Considerations for Urban Planning, (Washington, D.C.: Praeger Publishers, c. 1971.)



000-1153
51260
MADE IN